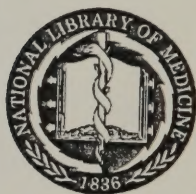
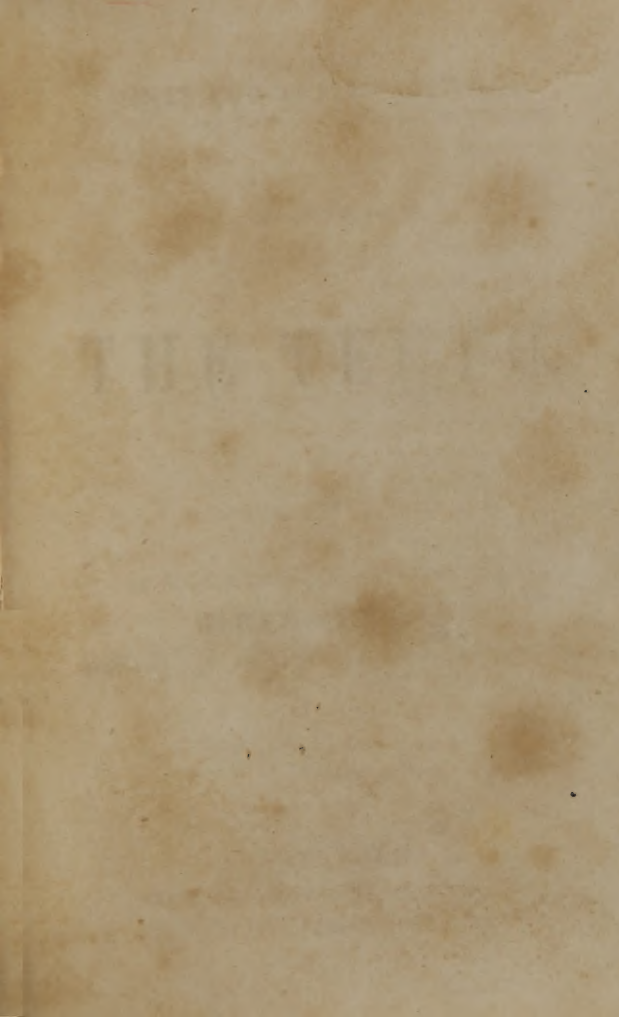




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HINTS FOR THE MULTITUDE.

RELATIVE TO

# THE TEETH,

BY

HIRAM PRESTON,

SURGICAL AND MECHANICAL DENTIST, HARTFORD, CT.

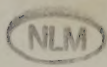
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THIS LITTLE WORK  
IS RESPECTFULLY DEDICATED,  
BY  
THE AUTHOR,  
TO THAT PORTION OF THE COMMUNITY  
WHO THINK!





## PREFATORY REMARKS.

The following chapters were originally written for the columns of the several newspapers printed in this city ; more than half of which were presented to the public through that medium, when the belief was expressed by a friend that they contained hints of sufficient interest to justify the expense of putting them into a more durable form. In compliance with this suggestion, the author offers them in their present shape, hoping they may prove instrumental in diffusing among the people that light, the want of which is the source of errors, both of omission and commission, as numerous as they are lamentable.

Under the appropriate precautionary measures, three-fourths of all the misery that is suffered from the tooth-ache, might be prevented ; and a like proportion of all the teeth that are suffered to go to decay, might be saved to prolonged use. Could we be instrumental in

persuading the younger portion of community to consult their own interest by seasonable attention to these invaluable organs, we should feel abundantly compensated for our humble efforts in portraying the evils resulting from neglect on the one hand, and the incalculable benefits to be realized from considerate care, and active means of preservation on the other.

THE AUTHOR.

# THE TEETH.

## CHAPTER I.

### PREVALENT ERRORS.

Believing that something is wanting for the purpose of removing the prejudice existing in the minds of many, relative to dental operations, I will, with your permission, prepare for your paper a short article occasionally, as I may have a leisure hour, for the purpose of disseminating correct views in regard to their propriety and importance.

I have practiced dentistry in Georgia, Alabama, Kentucky, Ohio, New-York, and Connecticut, as well as in several other States, and during the time spent in *some* of them, have not been surprised to

find occasionally an individual who believed that a coat of tartar upon the crown of a tooth, as thick as the blade of a case knife, is calculated to protect and preserve it in a state of health; that artificial teeth are inserted by drilling holes into the jaw-bone large enough to receive the roots of the new ones, made after the form of those whose places they are intended to supply, whether they have one root or three—and driven into the jaw with a hammer!—that plugging the teeth hastens their decay; and that the daily use of the brush must inevitably be followed by a speedy loss of these invaluable organs. I say I have been in places where I was not surprised to hear opinions such as I have named, and many more, equally philosophical and sound; but I have been sadly disappointed to find similar opinions entertained, even in old Connecticut, in this land of colleges and free-schools, and by men, too, whose information upon other subjects led me to expect

that their views were much more correct upon this.

TRUTH is powerful and will prevail ; but most important truths are often *too slow* in reaching the multitude, so that the greatest good may be enjoyed by the greatest number. The sale of voluminous dental works, intended for the profession, being limited, they are necessarily too expensive to find their way into the family library. The question is, then, how shall the minds of the multitude be reached, unless through the medium of the press and of cheap publications ? And who will undertake the work, if dentists are backward in discharging their duty to the public ?

From personal observation I am satisfied that not one-fourth as much dental work is done in Connecticut as there would be, did all understand the principles upon which our operations are based. In attempting to throw some light upon the subject, I do not thrust myself for-

ward because I feel confident of being able to do it justice; on the contrary, it is only on the principle that "half a loaf is better than none," that I presume to say anything. If others, who are more competent, *will not* put their hands to the plow, shall the field remain entirely uncultivated?

In very brief terms, then—the teeth are composed of enamel, bone, and pulp, the hard portion of which is divided into the crown, neck, and root, or roots, as the case may be. The crown is that portion lying above the gums and exposed to view; the neck constitutes the part between the edges of the gums and the root, where it enters the alveolus (or bony socket—or where the roots bifurcate in molar teeth,) and is firmly embraced by the gums, when in a state of health. The root is a continuation of the neck, and terminates in the bony socket. Within the roots and neck lies the pulp, or nerve, as it is commonly termed. The enamel,

which covers the bone of the crowns of the teeth, forms a thicker layer towards the part where the teeth come in contact, becoming gradually thinner as it approaches the gums, until it terminates just beneath their edges; it is much harder than bone, being about equal in consistency to steel with a blue temper. "The enamel contains no vessels, and when once destroyed cannot be reproduced."—(*Maury's Dental Art*, p. 29.)

The bone of a tooth, which constitutes by far the greatest portion of the entire substance, although much harder than other bones of the body, is not so hard as the enamel, and is much more readily injured by destructive agents than the latter.

The nerve, or pulp, which fills the cavities of the necks and roots of the teeth, is well supplied with capillary vessels, and is capable of suffering (as most people are quite willing to admit) most excruciating agony when in an inflamed

state, or when exposed, by decay of the tooth, and is reached by any hard substance.

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## CHAPTER II.

We shall now proceed to examine some of the most common causes that result in the loss of the teeth. "There is no disease to which the teeth are liable, more frequent in its occurrence, or fatal in its tendency, than caries," (common decay.) "It is often so insidious in its attacks, and rapid in its progress, that whole sets are frequently involved in irreparable ruin, before its existence is scarcely suspected." (Professor C. A. Harris' P. and P. of D. S., p. 228.)

Although, at different periods, different causes have been assigned for decay in teeth, there can scarcely be a doubt but vitiated secretions is the proximate cause of almost every case that occurs. This



theory of the cause of decay in teeth, is not only consistent, but harmonizes most perfectly with the mode of treatment at present adopted for arresting its progress.

Among the causes that produce this vitiated condition of the fluids of the mouth, which act so injuriously upon the dental substance, may be enumerated—mercurial diathesis, particles of food that find a lodging place between the teeth during the process of decomposition, decayed teeth, an irritated and diseased condition of the gums, kept up by a deposit of tarter,—as well as by the presence of roots of teeth, &c. &c. As a preventive to decay, to use the language of Professor Harris, “The importance of keeping the teeth clean, cannot be too strongly impressed upon the mind of every individual. Proper attention to the cleanliness of these organs, contributes more to their health and preservation than is generally supposed. Against caries, it is a most powerful prophylactic,”

"Where the teeth," says Doct. L. S. Parmly, "are kept literally clean, no disease will ever be perceptible, their structure will equally withstand the summer's heat and winter's cold, the changes of climate, the variation of diet, and even the diseases to which the other parts of the body may be subject from constitutional causes."

"At all ages the teeth should be well attended to, and experience proves that daily cleansing is their best preservative." (Maury's D. A., p. 126.)

Quotations could be multiplied, but my design is rather to show, by a mode of reasoning, such as all can understand, the propriety of what I urge. Those who have paid the least attention to the teeth, are aware that decay commences much oftener upon the lateral edges of the incisors, than on any other part of these teeth. The reason is plain, the motion of the lips and tongue, in speaking and in masticating food, have a ten-

dency to remove particles of food and other deposits—to some extent—from their anterior and posterior surfaces, while at the same time the objectionable matter, instead of being removed from the interstices (or spaces between the teeth) by the same cause, is rather increased by their lateral motion. At best, the particles of food find, in these intervening spaces, a quiet resting place during the process of decomposition. This fact shows also the advantage of the brush for cleaning the teeth, over all substitutes. A cloth, for instance, rubbed over the outer surface, does positively more harm than good, producing objectionable results, similar to those attributed to the tongue and lips, only in a much greater degree.

A volume might be written upon the hygienic means of preserving the teeth and gums in a healthy state; but as we propose occupying as little space as the nature of our subject will allow, we will say—as a preventive to disease, the *daily*

*faithful* use of the *brush* is mostly to be relied on,—together with such dentifrices as their condition may require. In the use of these, an exercise of the judgment will, in all cases, be necessary. A child, three years old, will require a much smaller and softer brush than an adult; again the gums of some grown persons are much more sensitive than are those of others. The glands of the mouth, in some instances, secrete and deposite, upon the teeth, a large quantity of tarter—while in others, but little is to be seen. In the former case, a more thorough use of the brush would be necessary; at the same time, the frequent use of some tooth paste or powder, possessing mechanical properties, will be highly proper to aid the brush in removing it at once, while in a soft state—for it is true, by remaining a length of time, it becomes so hard that nothing but dental instruments is adequate to its removal.

Finally, when the brush is used, do not

use it as a mere matter of *form*, but be careful to brush *every part of each tooth thoroughly*, taking care to give the brush a *rotary motion*, in order that the bristles may pass *between* the teeth. Do not use it *once a week, merely*, but **EVERY DAY**

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### CHAPTER III.

In our last article, we spoke of the importance of the brush as a preventive to decay. We did not, however, wish to be understood that its use would, in all cases, insure the health of the teeth during a life-time of an individual. It is well known that some teeth are constitutionally weak and predisposed, from their formation, to decay ; some are much more densely formed, and not so liable to be acted upon by corrosive agents. There can be no doubt but their physical characteristics are often hereditary ; but even under the worst circumstances, we have no doubt that their durability may be

much prolonged by proper attention to cleanliness.

When the process of decay has commenced, and is sufficiently extensive to render a plug proper, this operation is the only means by which the disease can be arrested.

I am aware that some, even in Connecticut, do not believe in the utility of filling teeth. To such, I would suggest a few causes that may have led them to wrong conclusions, and I ask their candid attention while I enumerate some of them.

In the first place, the plugging of a tooth is often one of the most difficult jobs a dentist is called to perform; and it cannot be denied that some have undertaken the practice who are utterly disqualified for the task—others may have had more *capacity* than *honesty*. It stands the community in hand, then, to be cautious in the selection of operators, because no man can have dental work

done without placing himself, to some extent, in the power of the employed—and until all men become what they should be, there will, no doubt, be some who, for the sake of gain, will be found willing to abuse the confidence reposed in them.

Again, the very difficulty of the task of which I have spoken, renders it quite probable that the most competent dentist will plug a tooth occasionally, which will not answer his expectations—even when governed by the best motives. Death will sometimes steal its victim from the hands of the most skillful physician—yet this consideration does not, and ought not to destroy all confidence in this highly respectable class of professional men.

Again—and this remark holds doubly good in all country places—if forty-nine plugs answer every reasonable expectation, and the fiftieth fails, the unfortunate dentist will suffer as much in reputation, with a certain class, as he will gain by his forty-nine successful operations.

I can recollect instances where I have been called to examine teeth, in which five or six plugs had been inserted, by some brother dentist, years before, with the remark that "they were probably all out," when the result proved they were *all in*, and the teeth had been effectually saved from certain and speedy destruction. But suppose the same remark had been made to others, not dentists, the inference would have been, that dentistry was a humbug, and that the poor man had been sadly imposed upon, instead of his teeth having been saved—notwithstanding he had suffered such a *mass* of *filth* to collect upon them that he could not tell whether the plugs were remaining or not.

But I want to convince those who are not well acquainted with dental operations, of the propriety of what we perform, rather than that we are liable to misrepresentations.

I have said that the enamel is much



harder than the bone of the tooth, and that it is capable of withstanding the action of vitiated fluids which destroy the bone so readily.

Many of my readers will recollect instances in which the crown of a tooth has crumbled to pieces nearly at once. The inference is, in such cases, generally, that the crown has decayed within a few weeks or months, while it is more than probable the work of destruction has been going on for years—the enamel having become checked sufficiently to allow fluids to pass through to the bone, which, decaying until there is nothing left to support the enamel, it falls to pieces suddenly, on biting some hard substance, and this leads to the error already named.

To prevent such an unfortunate result, when the process of decay is in the right stage, we clean out of the cavity every particle of carious matter, leaving the space a little larger within the bone than

is the opening through the enamel. We then fill the cavity with pure gold foil, taking especial care that it be so condensed as to exclude from the *bone* the fluids of the mouth. If this is perfectly done, it is clear that the enamel and the surface of the gold only is exposed to corrosive action—both of which are capable of withstanding its ruinous tendency for a great length of time.

In speaking of plugging teeth, Doct. Fitch says—"If properly done, this is one of the most useful operations in dental surgery." Again he says—"If well done, the preservation of the teeth will be, in almost every instance, complete." (Fitch's system of Dental Surgery, p. 398.)

"The preservation of a tooth, when well filled, and kept **CONSTANTLY CLEAN**, may be regarded as certain." (C. A. Harris' **P. and P. of D. S.**, p. 253.)

I have worn a gold plug, in one of my own teeth, seventeen years, and during

that time the tooth has been effectually preserved from decay.

But I would not encourage too great expectations in the minds of those who have yet to learn what to expect from dental work. As a general rule, then, we do not believe that the majority of gold plugs will remain during a life time. There are so many causes likely to effect their duration, independent of the skill of the operator, that I will name a few of them. Among the number may be enumerated the constitutional condition of the teeth—the extent of the decay—the state of the fluids of the mouth—the shape of the cavity—the manner in which the teeth shut together—the attention to cleanliness, &c. &c.

Again: I have known whole sets of beautiful teeth ruined, in one short year, by the careless administration of ACIDS! If the teeth go to *swift* destruction, and the plugs fall out in such cases, who is to blame? Not the dentist, surely. And

here permit me to say, that if I could be instrumental in preventing the ruinous consequences annually resulting from the neglect or ignorance of those having charge of the sick, in regard to the manner of giving acids, I should feel re-paid for the trouble of writing these articles, even though I accomplished nothing else. Acids act *directly* on the dental substances—(not like calomel through the secretory organs)—consequently the means for preventing its injurious effects consists simply in taking it through a straw, a goose quill, or a golden tube, as may suit the purse or taste of those needing it, and in rinsing the mouth immediately afterwards with a little water, in which a small quantity of sup. carb. of soda or saleratus has been dissolved—say a small tea-spoon full of either, in a tumbler of water.

## CHAPTER IV.

Among the number who are in the habit of attending to their teeth at any period of life, very few devote that attention to them which would be for their interest, under the age of fourteen years. Before this period, the process of shedding the temporary teeth, as well as their re-placement by permanent ones, is completed. Some people conclude that, as the temporary teeth are to be shed and re-placed, the sooner they are out of the way, the better, in order to make room for those intended to supply their loss. This is an error; because, when the deciduous teeth are removed long before the proper time for the appearance of the adult teeth, the jaw contracts, leaving less room than is needed for the second set—producing irregularities, and the accompanying train of evils, which are often as lasting as life.

Another reason why the first set should be retained in the mouth as long as they can be preserved in a healthy state, is, that they sometimes remain for *many years* beyond the period commonly allotted them.

We should, then, endeavor to preserve children's teeth in a healthy condition, till, by the ordinary process of the absorption of their roots, they become loose ; which circumstance indicates that the time is at hand when their places are to be filled with permanent successors.

As vitiated secretions produce most of the diseases of children's teeth—as well as those of adults—the brush must be mainly relied on as a preventive means ; this should be used at least once every day, commencing as soon as first dentition is completed—which is the case generally at about forty months of age. Dr. E. Parnly says : “ This is a subject which demands the attention of parents and those who are intrusted with the care

of children. It should be the first object of every person so situated to habituate children to clean their teeth at least twice a day, and, when this practice has been once adopted, it will be continued as a matter of course. Besides this, from the age of six to twelve years, in particular, a dentist should be consulted from three to four times a year, and, at a later period, once or twice, for the purpose of examining the teeth, and counteracting, by the timely removal of such causes as may produce disease, any mischief which is likely to take place."

It is said that in many of the principal academies and boarding-schools in Europe, the teeth of the pupils are examined regularly, by dentists appointed for that purpose, and who perform such operations, from time to time, as may prove necessary. How long will it be before this custom shall be introduced on this side of the water? When it becomes known that the fashion of a ladies' muff

has been changed, in London or Paris, from the size of a wool-sack to that of half a length of decent sized stove-pipe, it is not long before its value is fully appreciated in this country. Is a muff of more consequence than a set of teeth?

It not unfrequently happens, during the period spoken of by Dr. Parmly, that the teeth require cleaning, plugging, and extracting, as well as attention to the correction of irregularities, &c. As regards the proper time for the removal of a tooth of first growth, several considerations may influence us in deciding. If a tooth of this class ulcerates frequently at its root—is quite loose—is likely by remaining to give a wrong direction to its successor—is much decayed, or is very painful, it will be well to extract it.

The period of the eruption of the temporary teeth is generally between the fifth and fortieth months of infancy. According to Prof. Harris, “the four anterior molar teeth of permanent growth ap-



pear from the fifth to the sixth year, the four central incisors of first growth fall out and are replaced by adult teeth from 6 to 8 years of age, the four lateral incisors from 7 to 9, the four anterior molars from 9 to 10, the four posterior ditto from 10 to 11, the eye-teeth from 11 to 12; the second permanent molar teeth appear from 12 to 14, and the wisdom-teeth from 18 to 20."

It should be borne in mind, as a matter of much importance, that only *twenty* of the thirty-two teeth found in the mouth of an adult are shed and replaced: of course the preservation of the four anterior molar teeth, which appear before the process of shedding commences, ought not to be suffered to decay, as they frequently are, under the false notion that *all* the teeth are to be removed.

There is one practice connected with the development of infant teeth, which I believe might be more frequently adopted with great advantage, and I cannot

feel satisfied without mentioning it, with the hope that some little innocent may be benefitted by the hint. I allude to the operation of lancing the gums. I remember distinctly the *immediate* relief experienced by myself from this simple operation when my wisdom-teeth were cutting; I have also lanced those of many others, at the same period of life, with like success, and have often been rewarded by a smile of satisfaction while in the act of plying the lancet for the relief of an infant sufferer. Dr. Harris says—"I have frequently known children, after having suffered the greatest agony for days and weeks, until they were reduced to mere skeletons, to obtain immediate relief without the aid of any other remedy than this, which at once removes the cause—whereas the others only counteract the effects of suffering, and can, therefore, only be considered as palliatives, that may assist nature in her strug-

gle with disease, but cannot always prevent her from sinking in the contest."

In order, however, to be benefitted by this operation, it should be performed with a suitable instrument, by a careful hand, and at the right period, which can best be determined by those accustomed to the management of such cases. I have known an instance or two in which a *dull* instrument was used from choice ; for what reason it is difficult to determine, unless from the supposition that the enamel, at that period, was not hard enough to resist the edge of a sharp blade. If the enamel was not densely formed, it appears to me there would be greater objections to a dull blade than to a sharp one. It is, however, a well established fact that the enamel is too hard to be injured by the use of an instrument calculated to produce the least pain to the little patient at any time when this operation is necessary.

## CHAPTER V.

There are many erroneous opinions entertained relative to tartar that deposits upon the teeth, and its effects upon these organs, as well as the means for its removal. I have known instances where it was retained under the impression that it afforded *protection* to the teeth.

Let us look at the facts. Any one with half an eye can see that where there is much tartar, upon the teeth and beneath the gums, there is a corresponding degree of inflammation visible in the gums; they are very tender—more or less swollen, and bleed on the slightest touch. It must be remembered that although the effect of tartar on the crowns of teeth is objectionable, in every point of view, yet the greatest mischief is generally done by that portion deposited

beneath the gums, and upon the membrane which invests the roots and lines the bony sockets. It not unfrequently happens, as the deposit increases, and as it tends towards the extremities of the roots, that the gums, as well as the alveoli, are absorbed away—the teeth become loose, purulent matter is often discharged from around their necks; and finally, if the teeth do not fall out themselves, the patient is obliged to have them removed—and often, too, when, in every other respect, they are perfectly sound.

Teeth lost in this way are generally said to be lost from “scurvy of the gums.” I do not pretend that tartar is the sole agent in producing scurvy, for it is well known that both local and constitutional considerations have an agency in the matter. There can be no doubt, however, that tartar has its full influence in producing this loathsome affection.

Mr. Koecker, who has evidently devoted much attention to this subject, says

he never saw this disease unless tartar was present.

Doct. Fitch says—"Any cause that vitiates the saliva, whether constitutional or local, tends, more or less, to produce this disease. Local causes are probably always present, in a greater or less degree, in every case of scurvy. They are, first, every kind of foreign matter lodged between the edges of the gums, as, for instance, tartar, which is generally deposited between the edges of the gums, on the bodies and fangs of the teeth, and is the most common cause of this disease." (Fitch's D. S., p. 218.)

There is some difference in tartar, both in appearance and effect. There are, however, but two kinds to which particular allusion is deemed necessary in the present case.

In speaking of tartar that presents a yellow-brown color, Professor Harris says—"Inflammation, turgescence and suppuration of the gums, inflammation

of the alveolo-dental periosteum, (membrane, lining the socket,) the destruction of the sockets and loss of the teeth, and an altered condition of the fluids of the mouth, are among the local effects that arise from the long-continued presence of large collections of this kind of tartar on the teeth. The constitutional effects are not much less pernicious. Indigestion and general derangement of all the assimilative functions, are among the most common." (P. and P. of D. S., p. 211.)

There is another kind of tartar that is often seen on the upper front teeth, near the gums, of a dark green color; and, although confined to no period of life, is much more frequently found on the teeth of young persons, than on those of older ones. Its first visible effects on the enamel, is a roughness produced by its acrid powers—gradually the enamel, which is quite thin where it generally fastens, becomes pitted, and, if not arrested, is soon destroyed. The work of

destruction now makes rapid strides, and it is not uncommon to see all the upper incisors lost through its agency. This kind of tartar is often called *stain*, from the circumstance, probably, of there being less substance present than is the case with most other kinds capable of doing an equal amount of mischief.

I believe it is considered good practice to treat any disease by the removal of its cause. If a man gets a nail in his foot, he scarcely expects that it will become sound until the nail is removed. Now it strikes me, that the same mode of reasoning that would prompt a man to the removal of the nail, ought to induce him to remove the tartar from his teeth—especially when he knows the tartar is as much a foreign substance as the nail, and that it is firmly fixed between the investing membrane of the neck of the tooth and the gum—the former being nearly as tender as the nerve of the tooth, and the latter not the less sensible



from the constant state of inflammation kept up by this same deposite.

If we are satisfied that tartar ought not to remain on a tooth, the question is, by what means can it be removed with safety? If there is a considerable quantity, it should be removed with dental instruments, and these *alone* in the hands of a *skillful* and *faithful* operator.

It is hazardous using any dentifrice possessing powers capable of accomplishing this object—for as acid, in some form, is the principal ingredient relied on for this purpose, the remedy might prove as bad as the disease,—the tartar, as well as the enamel, being composed, in a good measure, of phosphate of lime; an acid sufficiently powerful to dissolve the former, would most assuredly injure the latter, if it did not ruin it entirely.

It is presumed that every dentist who may be called upon to remove tartar from the teeth, will be qualified to give such directions for the restoration of the gums

to health, as each individual case may require. It may not be amiss, however, to add, that to be permanently benefitted by this operation, the patient must make up his mind *not to neglect the daily use of the brush*, whatever medicinal remedies may be prescribed.

In pursuing this subject thus far, I have been governed solely by physical considerations ; yet there is another view of the matter which appears to me to be worth a moment's attention. Teeth that are well arranged, and kept constantly *clean*, certainly do add much to the general appearance of the human visage ; yet I could name individuals, who would not be seen in public with boots whose polished surfaces did not vie with the mirror in reflecting objects, who—strange to say—never applied a brush to their teeth in their lives.

Could a young gentleman, for one moment, realize the disgust experienced by a lady of cleanly habits, on beholding

a set of filthy teeth, on which tartar and tobacco juice seem struggling for pre-eminence, I am sure he would not be caught in her company with such an obstacle in the way of mutual enjoyment.

Ovid seemed to think a *smile* on the face of a *lady*, who had *bad teeth*, was a most excellent remedy *against love*—but even granting its efficacy in that prevailing *epidemic*, it is very doubtful whether it will ever become a very popular prescription.

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## CHAPTER VI.

Perhaps few operations of equal magnitude are looked upon with greater dread, than the extraction of a tooth. The anticipation of pain attending its removal does not terrify so much as the fear of a fracture, either of the tooth or the jaw. It is not strange, perhaps, that this fear should

exist, in a prominent degree, when we reflect upon the *horrid butcheries* committed by some who undertake to perform this *nice surgical operation*. Strange as it may seem, there are individuals who set themselves up as “tooth-drawers,” who know as little of the anatomy of the human jaw, or the physiology and pathology of the dental organs, as they do of the man in the moon, and whose principal surgical excellence consists in the fact that they “never let go ;” or, to use another set phrase, “something has to come.” It is shocking to reflect that well-meaning men have built a reputation upon such a foundation, and many an individual has not only hazarded his teeth and jaws, but his very *life*, upon no higher pretensions.

There have been two classes of men who have, at one time or another, been considered more competent to draw teeth than others—barbers and blacksmiths. Why a barber, however skillful and respectable he may be in his calling, should

assume the office pertaining to dentistry, it is difficult to determine. As well might Cupid, blind though he be, as all admit, offer his services to the people as an officiating optician.

As regards blacksmiths, they have some advantages, it is true. If they break one pair of *tongs*, they can make another pair; and if all other resources fail, they can use the *hammer* and *punch*—instruments that have been resorted to on more than one occasion, as some can testify who have *fortunately* survived the operation.

I wish it distinctly understood, that I do not speak disrespectfully of these two classes of men. A barber is not only a respectable and useful member of society, but is, by common consent, a privileged character. He, and he alone, can pull the noses of the aristocracy with impunity; but I insist upon it, he has a better right to pull *noses* than *teeth*.

The blacksmith is a man amongst men.

Look at his well developed muscles—see his round, full chest, and watch his erect carriage and firm tread—hear him whistle as he wields his hammer and bends the glowing metal to his will. There is grace, and dignity, and *utility*, and “*poetry of motion*.” Look at Elihu Burritt—that *one man* is worth all the Fanny Elsers that ever made *asses* of poor mortals. But when, instead of *drawing* bars of iron, he attempts to *draw* teeth, he mistakes his calling.

It may not be amiss to name some of the qualifications that fit a man for the removal of teeth.

Before any one can be a safe and skillful operator, he must know something of the manner in which a tooth is formed, as well as the time at which the different teeth appear. This is important, as it regards both the temporary and permanent teeth. He should also understand the relative condition and stage of progression during the process of shedding the

teeth of first growth and their replacement by those of the permanent class—the effect of removing the milk teeth too soon, or suffering them to remain too long in the mouth. He should be familiar with the names of all the teeth—their location—the number and shape of the *roots* belonging to each—the deviation liable to exist in the size and shape of the roots of each class. He should be able to judge of the symptoms that indicate a variety of diseases of the roots when the crowns are sound, and should be qualified to decide at a *glance*, whether a tooth belongs to the first or second set. He should also know how many of the whole number are to be shed, and at what period it is reasonable to expect this loss will occur. Finally, he should be well provided with a sufficient number of instruments, varying in shape and size, for the removal of each class of teeth. Nothing but a *steady practice* will enable one to apply a proper power, with safety, for this purpose. Some who

are in the habit of using two or three instruments only, will be surprised to be told that *twenty-five* or *thirty* are necessary, in order to be prepared for all difficulties that may present themselves. The author of this article uses about thirty, and has never felt embarrassed in selecting from that number the particular one which any new case might require.

By way of illustrating some of the foregoing remarks, I will relate a circumstance that came under my own observation :

At a certain time, a young lady, about fourteen years of age, called on me with her under jaw much swollen and quite sore—stating that a day or two previous to her visit, a neighbor, who was in the habit of extracting teeth, in attempting to remove one for her, that was loose and somewhat tender, had broken it, and notwithstanding he had made *many trials* to remove the *roots*, and nearly taken her life in trying to do so, had failed at last.



Now what was the truth in this case? Why, that the crown of the tooth *broken* so mysteriously, was all the removal necessary—it being all that remained of a *small molar* tooth of *first growth*, situated immediately behind the eye tooth—the roots of which had been entirely absorbed away by a process of nature, preparatory to the development of its successor, which was just ready to make its appearance, and which the kind neighbor, with all his *perseverance*, could not remove! Thanks to the fact that the new tooth was too deeply and firmly fixed in its socket to be taken out by his *abominable turnkey*.

Did room permit, I could relate several cases in which as many as *six* and *seven* teeth, together with large pieces of the jaw, have been removed, when the design was to extract but one tooth in each case—how the patients suffered much and long, and only recovered at last, to find themselves frightfully deformed for life; and all this from a want of knowledge and of suitable instruments.

“’Tis true, and pity ’tis, ’tis true,” that some, whose opportunities and experience lead us to expect better practice, are in the habit of grasping a tooth and wrenching it from its socket, much as a man would an unlucky nail which had, through his own carelessness, been instrumental in tearing a new coat—forgetting, apparently that there is more sensibility in one case than in the other. For myself, I would just as soon employ a man of this stamp to remove one of my own teeth, as I would another to extract a tooth for a child, who gains that child’s consent to the operation by *wilfully misrepresenting the degree of pain* likely to be experienced in the performance.

In this place, while I think of it, let me say, that while I would cautiously avoid causing in the mind of the patient any needless alarm in reference to the ceremony of extracting a tooth; still, it is no part of my *politics* to represent it as an

agreeable experiment. Those of my patrons who wish to be served with *misrepresentations*, will please bear in mind that my *chair* and my *instruments* are under bonds to tell the truth, the whole truth, and nothing but the truth. Under these colors shall they prosper in a good cause, or rust under neglect.

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## CHAPTER VII.

A great many persons who call upon me for professional services, seem to think the preservation of their *molar* teeth of little consequence, while they have their *front* ones filled, as a matter of the utmost importance. Now let us reflect a few moments upon the questionable propriety of such a course. The molar teeth, having larger crowns than those in front, while in progress of decay, throw off a much greater quantity of carious matter. Their roots being more numerous, as well

as in general larger, contribute more powerfully in vitiating the secretions of the mouth, thereby hastening the destruction of the others which are sound ; nor do these same front teeth, which we are so anxious to save, escape the common calamity. Again, by plugging the molar teeth to arrest their decay, we prevent much suffering from tooth ache ; the pain, too, attending their removal, is avoided ; the cheek is kept from falling in—a deformity which always, more or less, accompanies the loss of the larger teeth ; nor is it a trifling consideration, that, by resorting to timely dental precautions, the patient escapes a large share of the distressing evils to which the whole human machine is liable from a diseased state of the teeth and gums. Dr. Rush says, “ When we consider how often the teeth, when decayed, are exposed to irritation from hot and cold drinks, and aliment, and from pressure by mastication, and from cold air, and how intricate the con-

nection of the mouth is with the whole system, I am disposed to believe they are often unsuspected causes of general, and particularly of nervous, diseases. When we add to the list of these diseases, the morbid effects of the acrid and putrid matters which are sometimes discharged from carious teeth, or from ulcers in the gums, created by them, also the influence which both have in preventing perfect mastication, and the connection of that animal function with good health, I cannot help thinking that our success in the treatment of all chronic diseases would be very much promoted by directing our inquiries into the state of the teeth in sick people."

Another eminent writer remarks, that "the lungs are, in their formation, most delicate and sensitive, being susceptible to the slightest impressions. Nature has finely tempered the atmosphere for its safe and healthy reception in these delicate organs ; but art, accident or disease

may render it impure, and unfit for respiration, and cause it, instead of harmonizing with the lungs in the most perfect manner and giving to them and the whole system health and strength, to be a baneful influence, armed with pestilence, scattering the seeds of disease over the lungs, and pouring the streams of deadly poison through every vein in the system."

Need any one be told, at this enlightened period, that a thorough and perfect mastication of food is of the utmost importance to fit it for a reception into the stomach? Or that this performance is never well done when the *grinding* teeth are lost? Then there is another consideration not to be forgotten. The jaw, when in a state of repose, naturally inclines to find its support upon the molar teeth, the ends of which shut directly against each other, while the front teeth—in most cases—shut somewhat like a pair of shears, and when affording the only support to the jaw, are soon worn so

thin that they crumble and break to pieces, and when it is too late, we find the great object for which we have evinced so much solicitude has been defeated, and that the only remaining alternative is that of a full set of artificial plate teeth.

It is true, although not known to hundreds who place a high value on their front teeth, and who pay but little attention to the preservation of the molars, that when the incisors are lost from the cause just mentioned, it is impossible, in most cases, to supply by art the front teeth *only*. Hence the importance of saving the *grinders*, and avoiding thereby many of the evils to which we have alluded.

The large teeth afford the best stays upon which to fasten an artificial front set, which, when skillfully made, admirably supply, so far as looks and speech are concerned, the place, even of the most beautiful specimen of nature's original work, while the molars are used for masticating food.

It cannot be expected that a dentist will go into an explanation of the above views in detail, on every occasion and at every corner where he may meet a friend ; for indeed were he to do so, he would not unfrequently be suspected of designs more *selfish* than *philanthropic*. Upon those, however, who believe that there may be a *drop* of the milk of human kindness mixed with the *gallons* of depravity that fill the human heart, these hints may not, perhaps, be entirely thrown away. Even those who enter no credit in their account with human nature, except what is supposed to be referable to an impulse of *interest*, may nevertheless in due time find (possibly, too, in deep repentance over neglect) that the author of this article is entitled to some favorable regard on the score of TRUTH, whatever might have been his motive in writing it.



## CHAPTER VIII.

Among the dental fraternity there are many high-minded, honorable men, who despise a mean action, and whose advice may be taken at all times with the fullest confidence ; but there exists in the minds of at least a portion of community, a prejudice against dental operations, which in some instances has a tendency to embarrass the best endeavors of the profession. This prejudice can only be removed by a knowledge of some of the facts connected with the calling, which we now propose to consider.

Many persons believe that dentists charge for their services at least twice as much as they should do—that rates of compensation far below their present demands, would make their business as lucrative as that of most of the professions of the day. This estimate introduces, as a natural consequence, a class

of operators without capacity, and too often without principle. Hundreds have been induced from fancied pecuniary allurements to dedicate themselves to the profession, whose work is a positive damage in the end to those who employ them.

To that class who understand the philosophy of dental operations, it is well known that although a plug may remain in the cavity of a tooth for *years*, yet it may be so unskillfully inserted as to prove to be, either of very *little* advantage, or a decided injury, ~~accord~~ing as the work in its descending degrees of comparison may be poor, bad, or worst of all.

In the insertion of artificial teeth at the *very lowest prices*, there are both the temptation and the opportunity, if not indeed the stern *necessity*, for palming imposition upon the public, and, by poor work and poor materials together, most thoroughly to cheat a confiding patient; and that, too, while perhaps he is congratulating himself upon his happy escape from what he

conceives to be the overreaching propensities of those who would possibly have charged him twenty-five or fifty per cent. more for the same number of teeth *skillfully* inserted.

In the substitution of artificial teeth, whether upon plates or pivots, there are principles involved in the performance which embrace considerations far beyond the appearance, and the comfort of the moment, and which very justly add to the cost of the work, and of which it cannot be expected that all are competent judges. One may endure much suffering through life from the unskillful operations of dental quacks, and yet remain unacquainted with the true cause of his misery.

It cannot be denied that there are some dentists who "know the right, and yet the wrong pursue"—who consent to perform an improper operation rather than to lose the *job*. But perhaps the better way to make the subject more clearly understood will be to point out some of the

objectionable practices resorted to, both by the *ignorant pretender* and the *unprincipled practitioner*.

It is often the case that a cavity in a tooth is not made to be more than three quarters full, and what is worse, even the partial supply of filling is so loosely packed that it commences crumbling, perhaps on the very first month after its introduction. Now, I ask, of what value is such work, when it is understood that the whole object of filling the cavity of a decayed tooth is, so thoroughly to condense the metal, that not a particle of fluid can penetrate to the *bone* of the tooth? To execute this very critical and highly important operation in the best manner—to clear a cavity of every particle of decayed matter; and to condense a plug perfectly, in every part of the thousand differently shaped cavities which present themselves in different teeth, situated in every part of different mouths, will pretty *evidently* require a great many

instruments, embracing in diversity every shape and size ; and yet we often see men *fully* prepared for every case they may be called upon to treat, having in possession not more instruments than can be comfortably stowed away in a *vest pocket*.

As it respects the ingrafting of artificial crowns upon natural roots, the truth is, the quality of the crowns used by both the poorest and the best operators are at this time much the same ; the *best* article being so *cheap* that it would be folly to attempt to obtain a cheaper one by way of economy. But the *manner* and *style* in which the work is performed by variously qualified hands, are as unlike as are the extreme darkness of Egyptian midnight, and the blazing light of a noon-day sun.

A skillful dentist, if he be an honest man, will not ingraft an artificial crown upon a *loose* and *diseased* root, and being equipped with the most ample supply of the very best instruments, it is in his pow-

er to select, those which are most suitable in kind, and which enable him to avoid the infliction of any *needless degree of pain*. He is also abundantly supplied with every known preventive to *inflammation*, to which the gums and membranes, lining the sockets and investing the roots of the teeth, are from this operation more or less liable; and that, too, even when it is performed with the utmost care, and under the direction of a judgment least subject to mistake.

A dentist who is prepared to do good work, does not use an artificial crown selected as an *alternative* from a *single dozen* of its kind, which constitute his *entire stock*, but from as many *hundreds*, or *thousands*, comprising a variety that enables him to *match* the *natural neighbor*, both in reference to COLOR and SIZE, as well as in SHAPE.

Nor does his care end here. In fitting the end of the artificial crown to the end of the natural *root* upon which it is to be

ingrafted, he is careful to know that they meet upon rational and mechanical principles. An artificial tooth may be made to fit up under the edge of the gum on the outside, while on the inside a vacancy may remain, affording room enough for a liberal deposit of lingering food—to say nothing of a *pleasant* resting place for the tongue when not more profitably employed. Need we add, that much of the *strength, beauty and durability* of such an operation depend upon the perfection in which the end of the crown and that of the root are made to touch each other at every point; and that the firmness of the pivot, which retains the crown, depends a great deal upon the precise manner in which it is made to fit and fill the entire socket prepared in the root for its reception.

A pivot that is imperfect in its adaptation, even though it should be *hammered* into its place, can not be regarded as furnishing a very reliable support.

## CHAPTER IX.

In a preceding chapter, our remarks related in part to some *general* facts connected with the subject of dentistry, and in part to some of the details pertaining to the art of inserting artificial crowns upon natural roots. We now propose to consider the method of inserting teeth upon plate.

When artificial teeth are inserted upon gold plate, the difference between good and poor work is strikingly manifest. While some dentists use gold of 18, 20 and 22 carats fine, and that, too, as freely as is necessary to make the work most valuable to the patient, others do not hesitate to use that which is not more than 14 carats fine, and frequently not half enough even of that to make the work substantial.

Not only is the main plate made too thin and too narrow, but the clasps, also,



when used as an appendage, are of the same *penny calculating* description. Besides, under false representations—at least under *concealed* fraud—even *silver backs*, instead of gold, are sometimes put on to the teeth for the purpose of reducing the cost to the dentist, and to enable him to secure the job at such a reduced price as shall comport with the mistaken views of his patients.

No plate work should be inserted in the mouth when it is under the influence of disease. When any number of old and diseased teeth have been extracted for the purpose of repairing the mouth for the reception of artificial substitutes on plate, sufficient time must be allowed for the gums to acquire a sound and healthy condition ; for a plate fitted to gums that have not assumed a permanent form, cannot be worn for any length of time without producing constant irritation—thereby proving a source of annoyance, rather than of satisfaction.

No practitioner, who regards either his own reputation or the true interests of his patients, will consent to insert a plate, until sufficient time has elapsed—after the removal of any roots as a preliminary preparation of the mouth, for such work—for a complete absorption of the alveoli, and for the gums to become so permanently shaped that no change of form will be likely to take place afterwards. Otherwise the plate will soon cease to fit, and an irritation, resulting from an unequal pressure of the plate, is certain to follow, rendering the work valueless.

After the removal of decayed teeth and roots from the jaw, for the purpose of preparing the mouth for the reception of plate work, a lapse of time, of from six weeks to twelve months, may not be more than sufficient for the parts to acquire that sound and stable condition which the case may demand; much depending, however, upon the number and size of the teeth removed, as well as upon the *man-*

ner in which the plate is to be supported in the mouth; more time being required when atmospheric pressure is to be relied upon, than when clasps are employed to serve the same purpose.

There is another reprehensible practice, consisting in adjusting a plate over natural roots which are suffered to remain in the jaw. When this is done, in process of time, the ends of the roots decay and crumble, leaving sharp, ragged points, which induce a tenderness of the surrounding parts, the pain of which is much increased by the pressure of the plate resting upon them. In the course of time, so much change takes place from this decay of the roots and the consequent receding of the gums, that the entire structure has to be removed.

Instances do occur, it is true, in which pretty sound roots may with propriety, in the absence of better security, be suffered to remain and be used as the receptacle of metal pivot for confining the plate upon

which the artificial teeth are made fast. But very rarely indeed should they be suffered to remain for any other reason. It is true that if the patient is able and willing to disguise a natural deformity by the aid of art, without reference to *permanency*, it is no fault of the dentists: *provided* that the professional man is scrupulously exact to inform the applicant just how much or how little is to be expected from such an artificial fixture, though executed in compliance with request.

In the foregoing remarks I have endeavored, in a plain and simple manner, so to point out the difference between *just* and *fraudulent* practices—between skillful and unskillful dental operations—that all may see at once the propriety or impropriety of the various methods of performing, at least a portion of such dental services as from time to time they may chance to need.

In closing this chapter, I would remark, that although I have in a former article

offered some reasons why one dentist may with much propriety charge more for a given piece of work than do others, yet I am by no means an advocate for *extortion*. The questions are, at what level is the medium? and what the point at which reciprocating equivalents maintain an equilibrium? These questions must be decided by each individual for himself, bearing in mind that while one dentist advertises that he will plug teeth with *fine gold foil* for fifty cents per cavity, another asks from seventy-five cents to one dollar; call at another office and the demand is from \$1,50 to \$3,00. Indeed, in some sections of the Union, the terms are from \$3,00 to \$5,00—and all this variety of prices for one and the same amount of services. Nevertheless, all will offer the most *plausible* reasons for any demands which they make.

That the value of the same description of work should vary in different sections of the country is not surprising, but that

one man residing in any given city, village, or town, should offer to perform a given amount of labor, and to use a certain *quantity* and *quality* of materials for a stipulated compensation, barely nominal in amount, while his next door neighbor charges five times as much for the very *same thing*, renders it pretty evident, that if you are not imposed upon by bad work on the one hand, or robbed at wholesale on the other, then most assuredly will those dentists who pursue their avocation apparently for the sole benefit which they find in bodily exercise, sooner or later, in their intercourse with the baker and the butcher, receive some respectful admonitions that their prices are below a living rate.

Finally, if we must be cheated at all, it is much better that we pay *too much* for *good work*, than that we pay the *smallest conceivable* sum for that which is *worse than useless*.

From what has been said in this chapter, let it not be inferred that a *competent, honest man* will represent to his patients that he will insert *artificial* teeth which will answer as good a purpose as do those of *natural* growth, or that a tooth which has been plugged, even by the most skillful hand, will *unconditionally*, last a *life-time*. It is believed that no reflecting, well-informed man will, as a general rule, anticipate any such results, even though assured by a dentist, anxious to secure his patronage, that such permanency is *invariably* within his control. How, indeed, can it be so, when we consider the agencies exerted in producing the two kinds of teeth? Those of nature's production are a part and parcel of the entire physical being of man, endowed by the Supreme Architect with vascularity, having vitality, and sustaining in their office a most perfect connexion with the whole human machine, while those of art are altogether a foreign substance, fabri-

cated at best by fallible hands. 'The wonder is, that the dentist is able to do so much in imitation of nature's efforts, rather than that he cannot do more. Again, when we reflect that the ceremony of plugging a tooth is attended with numerous difficulties, some of which, indeed, none but the operator himself can fully appreciate, is there not cause for congratulation that in a *majority* of cases, the progress of decay can, by dental aid, be successfully arrested, pain prevented, and a valuable masticating organ made useful for a term of years, sometimes, indeed, for the whole period of life ; even though occasional defeat should wait upon the highest professional skill of the land. Men do not expect that a watch, a musical instrument, or any other mechanical device, however perfect in its kind, in reference both to workmanship and materials, will bid defiance to those laws of nature, the very design of which is, to perform the work of decay. How then can it be sup-



posed that a tooth, in which a cavity furnishes visible proof of the activity of this invading agent, can with *unerring certainty* be made by any human means to last *always*, the interested representations of designing men to the contrary notwithstanding.

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## CHAPTER X.

The first impression generally created on having plate-teeth put into the mouth, is that it has become a receptacle for all the garden utensils in the neighborhood ; including little *harrows*, *hand-rakes*, small wheel-barrows, and the like. Let me assure my readers, however, that the novel feelings realized on first acquaintance with this new *circle of friends* will soon subside, and that in due time the unpleasant sensation produced by change, will be quite as perceptible when these fan-

cied transgressors are occasionally removed from the mouth, as was experienced on their first introduction ; such is the well-known influence of habit.

If, however, as is sometimes the case, the edges of the plate, or clasps, press so unequally upon the gums as to produce irritation, an immediate application should be made to the dentist who performed the service, and if he understands his business, he will, in almost every instance, by some slight alteration be able to afford the desired relief. It sometimes happens that the clasps, owing to a variety of causes, produce a lateral pressure upon the natural teeth to which they are attached ; causing more or less tenderness to be felt for several days. When this is slight, and the plate teeth in other respects feel comfortable, the patient may rest satisfied this sensibility will be of short duration ; but if considerable, the just inference is, that the pressure is un-

necessarily great, and the evil should be corrected at once.

There are various ways of managing plate teeth after their introduction into the mouth ; some of which are very erroneous. I have known persons who did not remove them for months together, committing the mistake under the false impression that by disturbing them, they would wear out the natural teeth to which the clasps were attached. The consequence in every such instance is, that particles of food get between the clasps and the natural teeth, where they are decomposed, producing a vitiated mass sufficient to ruin the best of teeth, in a few years at most.

It will be remembered that the enamel of a tooth is about as hard as steel qualified by a blue temper ; consequently it is capable of withstanding much friction ; yet there are chemical agents, such as certain kinds of acids, which destroy this

substance within a few years, days, or hours, according to their activity.

Some persons practice removing their plates from their mouths on retiring at night, and putting them into water ; partly for the purpose of keeping them clean, and partly, perhaps, under the impression that the natural teeth will be saved from friction occasioned by the clasps when worn during the hours of sleep. This custom, so far as cleanliness is concerned, is better than no precaution, especially if the work be well brushed before re-inserting it in the mouth in the morning. But in reference to every desirable object connected with this subject, it is a much more effectual method to brush both the natural teeth and artificial fixtures, after *every meal* ; taking special care withal, to cleanse the inside of the clasps.

This operation may be much facilitated by using occasionally, a brush that has first been drawn across a piece of hard

soap; and should it prove that any portion of the work has become a little tarnished, it may be readily restored to its primitive lustre, by using with the brush when wet, a little prepared chalk.

It will sometimes happen, in process of time, that a plate will crack; a clasp break, or that some other cause may arise to induce an individual to lay aside for the time being, their artificial fixtures. I remember an instance that came under my notice some years ago, in which a lady had incurred considerable expense in procuring nearly a full upper, and a part of an under set of teeth upon gold plate, which were supported in her mouth by means of spiral springs. It so happened that there were several natural teeth remaining in different parts of the under jaw; the intervening spaces having been supplied by art. At the end of a few months this lady was confined to her bed for a short time with a prevailing epidemic; during which time she laid

aside the teeth supplied by the dentist, and on her recovery was surprised to find such changes had taken place in her natural dental organs, that those furnished by art could not be worn at all. This fact shows that solitary teeth scattered about in the jaw, being unsupported by healthy neighboring co-operators, are always liable to change in their sockets.

The inference, therefore, to be drawn, is, that a dental plate should not remain out of the mouth at any time, longer than is necessary ; nor need any one apprehend in any essential degree, injurious results from wearing such a piece of furniture constantly, day and night, provided it is properly made, and always kept perfectly clean.

## CHAPTER XI.

Truth, unalloyed truth, is often so unceremonious and conflicts so directly with prevailing customs, that even those who admire it most, sometimes *prudently* hesitate to utter it. But there is now and then a spot where it is so appropriate—where it seems to fit so well, that one possessing more of intrepidity than of caution, may possibly escape a gratuitous lodging within the walls of the lunatic asylum;—the reward of insanity;—though verily on an emergency he should bravely venture to pronounce it.

In reference then to dental work, I do not hesitate unequivocally to assert, that in very many instances, the plates upon which artificial teeth are inserted, do not contain *one-half* the quantity of gold that they should contain, and that a large share of the remainder have not more

than two-thirds to three-fourths as much as they should have, and if it must be said, probably not one job in ten, on an average, contains as much metal as should be appropriated, to make it *unexceptionably* complete. What then are the consequences of this penny-wise economy? They are exhibited in a variety of forms; the most distressing of which is, a constantly *sore mouth*—the *least*, that of a premature failure of the work itself.

These assertions are not whispered confidentially within closed doors, under enjoined concealments, merely for a *negotiating effect*, but we would pronounce them in unequivocal terms and in audible tone, that both the deceiver and the deceived may hear and understand. Scarcely a day passes, that of those who apply to me for counsel, one or more of the number do not inquire, “What is it that makes my mouth so sore?” In nine cases out of ten, if the patient wears a plate, the only assignable cause is, the scanty width and



flexibility of the plate, together with the probable neglect on the part of the owner, to take it out of the mouth occasionally for the purpose of cleaning it.

It is not at all surprising that a dental plate, the thickness and width of which might lead one to suspect that it was intended to supply the place of an amputated grass-hoppers wing, should prove a source of continual irritation.

Now whose is the fault—whose the offence—whose the responsibility? Sometimes it is exclusively the fault, if not the *crime* of the dentist. Sometimes it is the legitimate reward of a *pinching parsimony* on the part of the patient. Occasionally it is an evil, purchased by *limited means*; a case which excites our sympathies, not our frowns. Then again, it is the result of an avaricious, antagonistical spirit, mutually indulged by the dentist and the patient, the one, acting under an impulse that tempts him to give the *least possible* value for a stipulated compensation, while

the other, struggles for a grasp upon the most *perfect* article, upon terms that promise in return not more than *half* its worth. But when two *miserly flints* come in contact, no spectator will faint over the wounds which either may receive in dispute for a shilling.

A skillful and scrupulously honest dentist, (and of such there are many,) will not fail to explain to those who call upon him for advice and for professional service, in the formation of dental plate, the difference between work of any given degree of perfection and that of higher or lower grades. This having been done, the patient becomes in some measure prepared to decide for himself, what quality and price are best adapted to his wants and to his means.

I hope, for the honor of the fraternity to which I belong, that there are but few of its members, who having stipulated to furnish a dental, gold plate of *twenty-two* carats fine, would attempt to pass off one

in its stead, only *fourteen* carats fine. If there are any such, they ought in testimony of merited esteem, to be furnished with steady employment for a short term, at WETHERSFIELD ; not in the honorable business of cultivating *onions*, where the unconfined breeze and unobstructed and *un-alloyed* rays of the fountain of light, would pronouuce upon him their daily blessings ; but in the State *Seminary*, where in remembrance of his virtues, he would be provided with board and lodging free of charge. The *quality*, however, might furnish a rebuking contrast between a choice beef steak of *twenty-two carats fine*, and a questionable compound called hasty pudding and molasses, of only *three or four carats fine*.

But the time is coming when the subject of dentistry will be more generally understood by the people, than it now is. When any attempts to practice upon them, those frauds which have been and still are occurrences, so

degrading to the calling and so seriously regretted by the honorable and upright portion of the profession, will meet the just recompense due to an unrighteous deed. Should the writer of this article live to see that time, he does not expect that he will then be consulted on every day in the week by those wearing artificial teeth upon plates, to explain why it is that their gums and teeth are so tender that the mere touch of the tongue upon the artificial fixture is attended with such painful sensations.

The time is not far distant when a lady will evince as much judgment and shrewdness in bargaining for a set of plate teeth, as she now manifests in the selection of any ordinary article of dry goods, and will as readily detect any deficiency in quality or quantity of gold requisite, as she now detects *half cotton* in an "ALL WOOL" fabric. As readily will she distinguish between comparative *widths* and *thickness* of dental plates, as she

now determines by actual measurement, that a shawl, *called eight* quarters square, must needs be stretched a little, to make it SEVEN.

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## CHAPTER XII.

Being often asked what dentifrice is suitable for cleansing the teeth, I have thought it might not be amiss to offer to the public, through the medium of the press, a few hints relative to such a preparation. To do justice to the subject upon which we propose bestowing a few thoughts at this time would require an entire volume, instead of a single column of a newspaper. Therefore, the most that we can expect to do in this article, is to caution the community against the use of certain domestic applications which are decidedly injurious: and to offer some

directions, which, if followed, will enable every one to supply himself with a preparation which, in all ordinary cases will answer a much better purpose, bearing in mind, that in every instance in which the dental organs present evidences of disease, other than that which is of the *mildest* form, the advice of one who makes their condition a constant subject of study should be sought at once.

Perhaps we have no organs liable to more abusive treatment than are the teeth and gums. I know an individual who is in the habit of rubbing his teeth about *twice a year*—spring and fall, with a little *sand* which he obtains from the margin of a certain brook running through his farm, and to which he ascribes wonderful preservative properties. Others use lemon juice, vinegar, cream of tartar and dilute muriatic acid, all of which are extremely pernicious. Charcoal has, with many persons a reputation to which it has no just claims, and although not so objectionable

as acids, is nevertheless far from being the best tooth powder in use.

In ninety-nine cases out of an hundred, it is far better that any number of *molar* teeth be removed, when decay has reached their pulps, than to attempt to save them by destroying their nerves, which is an uncertain and hazardous experiment at best. If, however, the patient has a large number of badly decayed teeth, but will not consent to their extraction, then the daily use of a mixture of equal parts of charcoal and Peruvian bark, may be employed to advantage.

In some sections of the Union, the ladies practice, what they term dipping, which consists in taking a small quantity of *snuff*, on the end of a dog-wood twig, one end of which has been previously broomed by chewing, and then rubbing their teeth with with it, sometimes for hours together; renewing the supply and the application of this *precious luxury* from time to time, to suit the demands of

this genteel and truly philosophical habit. This *singular* practice, to use a mild term, is generally *commenced* under the pretence of cleaning the teeth, but is often *continued* to gratify the cravings of a vitiated appetite created by its use.

Some of the objections to the use of charcoal, apply with still greater propriety to the use of snuff; both of which are generally believed to affect the gums more unfavorably than they do the teeth. Indeed, there are comparatively few, we think, who would use charcoal for any thing found in it that is particularly agreeable to the taste; and fewer still the *uninitiated* number who would not regard a prescription of *snuff* to be the most intolerable remedy of all.

Mr. Maury, a French writer, in noticing the use of charcoal, remarks, “ Although this substance, finely pulverized, has been for a long time a popular dentifrice, because of its preservative qualities, its use is now almost entirely abandoned. The



objections to it, however, do not result from any injurious effects upon the enamel of the teeth, but from its insinuating itself between the necks of the teeth and the gums." Mr. Maury undoubtedly believed that the fine cutting properties of charcoal, produce an irritation of the softer parts where it finds a lodging place.

An eminent American Dentist, in speaking of *snuff*, for the purpose of cleaning the teeth, says—"I have observed that the gums of persons, who have used snuff as a dentifrice for a length of time, usually have a dark purple, and sometimes a yellowish appearance; that they are soft and spongy, more or less isolated from the teeth, and that the teeth themselves are not unfrequently much loosened. Common salt is sometimes used as a means of cleansing the mouth and teeth. This article, being a stimulant when externally applied, is quite harmless in its effects; or rather water in which it has been dissolved is so; and in certain con-

ditions of the *gums*, may be used to advantage.

It is believed, however, that a tablespoonful of spirits, mixed with half a tumbler of water, will answer quite as well, especially when a pale, flabby appearance of the gums indicate the propriety of a *stimulating* application, and that it is quite as powerful in aiding the brush in cleansing the mouth generally.

But there is another class of persons whose bumps of caution are so prominently developed, that it would be almost uncivil to express any surprise that they should be so scrupulously careful not to clean their teeth by any means at all.

Between two wild extremes, a rational medium can generally be found. Some persons, indeed, there may be, whose dental organs are sound, and free from stain and tartar, and whose gums are equally free from disease. Such persons may require nothing more than a tooth-pick and tumbler of water after each

meal; while others whose dental organs and their appendages, are but *slightly* affected, and whose salivary glands secrete but little tartar, will find that the brush and pure water are all that is necessary. A large portion of community, will, however, we doubt not, have occasion to use a dentifrice possessing both medicinal and mechanical properties, as a valuable auxiliary in securing to the gums a healthy condition, and in keeping the teeth as clean and white as nature intended they should be.

In the mean time, it is well to bear in mind that the most *simple subsidiary* which is adequate to the end sought, is, as a general rule, decidedly the best. But too frequent use even of a good article, may be followed by injury. It does not follow that because a dentifrice, when properly used, is of great value, its benefit will be enhanced in proportion as we increase its use, any more than because a Boston cracker imparts new strength

and vigor to a famishing man, a ten pound loaf will make him as strong as Sampson.

A dental writer remarks that "an excellent dentifrice may be made of three or four hard substances selected with judgment," adding "there is nothing that evinces so much of charlatanism as the heterogenous mixture of various powders to which an *imposing name* is given."

When a powder of *active mechanical* properties is requisite for the removal of such stains as need not of necessity come under the care of a dentist, the following preparations may be used with safety once, twice or three times a week, as occasion may require :

Orris root,	2 drachms.
Prepared chalk,	2 do.
Prepared pumice stone,	1 do.

The above ingredients, all of which can be purchased at any drug store, like *every thing else*, intended to be used on the teeth, should be *finely pulverized* ; mixed, and passed through a very *fine sieve*. Or-

ris is an expectorant, but mostly valuable for its pleasant flavor. Prepared chalk is mechanical in its action, and is also an absorbant. Pumice stone is mechanical *only*.

A preparation which in a majority of cases would prove still more efficacious, may be composed of the subjoined ingredients:—Prepared chalk, one ounce—Oris root, one ounce—Peruvian bark, half an ounce—Pure white sugar, half an ounce. This mixture may be scented with a few drops of cinnamon oil, or oil of bergamot to suit the taste.

The Peruvian bark is here used on account of its astringent and tonic effects. Loaf sugar is antiseptic, and also imparts a pleasant flavor to the entire mass. It does not follow, because raisins and candies are injurious to the teeth, that pure saccharine matter must be so likewise. It is some quality not contained in pure sugar, that enters into common candies which produces decay in teeth, while

in raisins, the objectionable agent is found in the tartaric acid which they always contain.

This chapter already exceeds the limits of my original design ; nevertheless, I am unwilling to bring it to a close without alluding to the practice of chewing *cloves* and *cinnamon* with the view of substituting their fragrance for the offensive effluvium which never fails to flow from decayed teeth. If those who have unfortunately been driven to these expedients, the object of which, is always defeated by the very means employed, will consent to cleanse their teeth *thoroughly*, with a brush dipped in a weak preparation of *lime water*, and to rinse the mouth well with the same preparation, the result will be so satisfactory, they will never again resort to *spices*, which, so far from disguising an odious nuisance, only serves to add intensity to the flavor of a dish always sufficiently *officious* without the aid of *condiments*.

To prepare lime water, we have only to pour two gallons of water, gradually, upon a pound of fresh burned quick-lime, like that used for whitewashing. After stirring these well together, suffer the mixture to stand at rest till the lime has settled—after which, strain or pour off the clear liquor, and keep it tightly corked. Upon using it, reduce with water till it shall not be unpleasant to the taste.

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### CHAPTER XIII.

During several years past, a remedy for that distressing disease, commonly known as the “nervous Tooth-ache,” has been with me a subject of the most anxious inquiry; and I am happy to say, that about six months since, I came in possession of a preparation, which I now look upon as approaching much nearer to a specific for this excruciating complaint,

than any medicine with which I had any previous acquaintance. This medicine is nothing more nor less than "First dilution of Belladonna," Homœopathically speaking;—one drop of which is taken internally, in a teaspoonful of water, and repeated once in two, three, five, or ten minutes, as suits the emergency of the case. I believe I have, since I commenced prescribing this remedy, cured at least one-half of the number of persons, who, being afflicted in this manner, have applied to me for relief. A portion of the remainder have been more or less benefitted, while a *few* perhaps, may not have realized from it any essential profit.

As is the case with other medicines, so with this; it does not act alike on all; for while to one patient it affords relief within fifteen or twenty minutes, with another it lingers perhaps for several hours before manifesting its efficacy. I speak now of cases in which results have transpired under my own personal obser-



vation. In quite a number of cases I have administered this remedy to individuals residing out of the city, and up to the present moment, in several of them, no returns of its success have reached me.

I am no bigoted follower of any of the conflicting medical theories of the day; my motto being "honor to whom honor is due," and I take great pleasure in acknowledging my indebtedness to Dr. Henry Lee, of this city, for this invaluable remedial agent. If it be true, as some believe, that the benefits of Homœopathy have their origin in the imagination, then all I have to say, is, that I do not care what the *harmless cause* which produces such happy *results*. Moreover, so far as the expense is concerned, a vial full of the ostensible remedy costs but a trifle, nor does the same quantity of *imagination*, add a farthing to the price.

I have already given through the medium of the "Hartford Courant," a re-

cipe for preparing a mixture which I have found to be highly beneficial in cases of tooth-ache, produced by *inflammation* of the pulp or membranes belonging to a single dental organ.

This disease in any and every form, being of so distressing a character, I trust it will be regarded as a pardonable freedom, should I renewedly communicate to the public, the mode of preparing said remedy, together with some additional directions, relative to the same form of this disease. If in doing this, I shall be instrumental in relieving some small portion of the suffering to which humanity is exposed, I shall feel amply compensated for the time spent in performing the agreeable service.

Take—Sulphuric Ether      1 ounce.

Pulverized Gum Camphor   2 drachms.

do.      Alum                      2    do.

Mix, and keep tightly corked—wet a little cotton or lint, with the mixture and apply to the seat of pain.

Another preparation of equal efficacy, consists of

Sulphuric Ether	1 ounce,
Kreosote	1-2 drachm,
Extract (or tincture) of } nutgalls	1 do.
Gum Camphor	1-2 ounce.

Keep tightly corked as before, and apply in the same manner.

Either of the foregoing preparations, will, in a great majority of cases, afford *immediate* relief to an aching tooth.

Another very valuable and simple application consists of equal portions of camphor and laudanum. The manner of applying it, being the same as that just named.

The symptoms which distinguish what is generally understood by the term nervous Toothache, are as follows:—Pain at intervals—sometimes confined for a longer or shorter period to *one* tooth in the under jaw; then suddenly changing its location to a trespass on the upper jaw,

and making one or more of the masticating organs a passing call on the opposite side of the mouth. Then taking a hasty leave of the *teeth*, pays a flying visit to the *neck*. Next, with the velocity of thought, it seems to be dancing tauntingly amidst the temporal nerves ; again in its rapid perambulations, calls on the *nervous orbitalis*,—scarcely stopping to exchange civilities, it whisks through the *olfactory foramina*, having apparently taken final and very welcome departure. But the patient has scarcely received the congratulations of his friends, for his happy escape from this much dreaded foe, ere he finds him under hostile colors, lazily dragging his artillery along the maxillary *sinus* as if perfectly satisfied with his secure position ; ready on the very shortest notice to open his batteries, or to send out his flying artillery in a mode least likely to give “aid and comfort” to his victim.

These are among the antics played by

this unceremonious visitor, nor is it believed that they can be more successfully encountered by any known remedy than by *Belladonna*.

Should the reader suspect that the writer has endeavored to ornament the concluding part of this chapter in attempting to pass off *mystery* for *depth of knowledge*, in accordance with the prevailing *fashion* of the times, by lugging in a few *technicalities*; then he (the writer) promises to make the most satisfactory explanation, when the reader shall reciprocate the favor, by simplifying the *concentrated essence of wisdom*, displayed in the *amalgamation* of the I's and J's in Walker's Dictionary, and by reducing to plain English the evidence of "*total depravity*" which generally characterizes the wording of a legal instrument.

## CHAPTER XIV.

Dentistry, like other sciences, is progressive. During the last twenty-five years, various metals and amalgams have been employed for filling the cavities of decayed teeth. Among the number may be enumerated, gold, tin, platinum, silver, lead, gum mastic, the alloy of bismuth, tin, and lead, to which was subsequently added, by M. Regnart, by way of *improvement*, a small quantity of *mercury*.

The amalgam of *mercury* and *silver*, alias *lithodcon*, alias *mineral cement*, alias *paste*—and how many more aliases it may have assumed for the purpose of hiding its true character, the writer of this article does not know. Most of these substances have had their popular day; but as they have been found to be worthless, if not injurious, they have been laid aside to be regarded only as affording an im-

pressive contrast to the greater perfection of modern discoveries and modern practice.

As a general rule, gold is decidedly the best material with which a cavity in a tooth can be filled. This metal, if of a pure quality, not only packs well, but is capable of withstanding the oxydizing tendency of the acrid fluids of the mouth. Tin foil occupies the next grade in point of comparative value, because, in the first place, it condenses in the most satisfactory manner, and if economy be an object, no appropriate article can be employed that is less expensive; at the same time, it withstands the action of the vitiated secretions, longer than any thing else which can be used with any propriety, except gold. Platina would answer a valuable purpose, but for the difficulty in working it. Silver does not work as well as tin, while it oxydizes much more readily. Lead is a pleasant metal to use, but it lacks durability. Gun

mastic is worthless in almost every point of view. The alloy of bismuth, tin, lead and mercury, is composed as follows :

Bismuth,	40 parts.
Lead,	25 do.
Tin,	15 do.
Mercury,	8 do.

This composition is fusible at boiling heat. The cavity destined to be filled was first cleansed of its decayed matter, wiped dry, and the requisite quantity of this composition deposited in the cavity where it was fused by means of a piece of iron or steel, of suitable shape, made hot enough for that purpose. The objections to its use were, the pain produced during the process of inserting, its liability to create inflammation, resulting often in abscess, and its disposition to shrink when cooling. In short, the practice was found to be so pernicious, that in due time it was entirely abandoned.

It is a suspicious circumstance that any thing claiming to be valuable, should



be compelled, for the purpose of disguising its defects, to assume at short intervals of time, a new cognomen. Independently of this circumstance, it is well known that *all* compositions, formed in part of *mercury*, are decidedly unfit to be used for the purpose of filling decayed teeth. This decision is supported by the following considerations :

First, it frequently destroys the life of the tooth ; secondly, it often excites a degree of tenderness in the socket and its surrounding parts, that is more or less troublesome ; the tooth in which it is lodged becomes loose, and inflammation often follows, extending itself to the adjoining teeth, and producing abscess. Thirdly, in some mouths, it excites *salivation*.

I have myself witnessed *many* cases in which this mode of filling teeth resulted in inflammation of the alveoli ; and finally in the removal of the teeth, as the only means of becoming freed from the inju-

rious consequences resulting from it.

“The amalgam of mercury and silver,” says Prof. Harris, “but better known by the name of mineral cement or lithodeon, is decidedly the most pernicious metal that has ever been employed for filling teeth. It not only readily oxydizes in the mouth, turning the teeth black, and hastening, rather than preventing their destruction, but it also, when used in any considerable quantity, excites a deleterious effect upon the alveoli-dental membranes, gums, and all the parts of the mouth. The author has at this time, a case under treatment, of a young lady, about sixteen years of age, who is suffering from chronic inflammation of the alveoli-dental periosteum of nearly half her teeth, gums, and mucus membranes of her mouth, caused by three large fillings of lithodeon, in her molar teeth.” He adds, “Some have endeavored to obviate the objection to this amalgam by using silver perfectly

purified, but it matters not how pure the silver may be ; the material will be equally deleterious in its effects. Nor would pure gold and quicksilver be any better. It is the MERCURY that does the injury, and it matters not, therefore, how pure, or what the other metal may be that is employed with it for the formation of the amalgam."

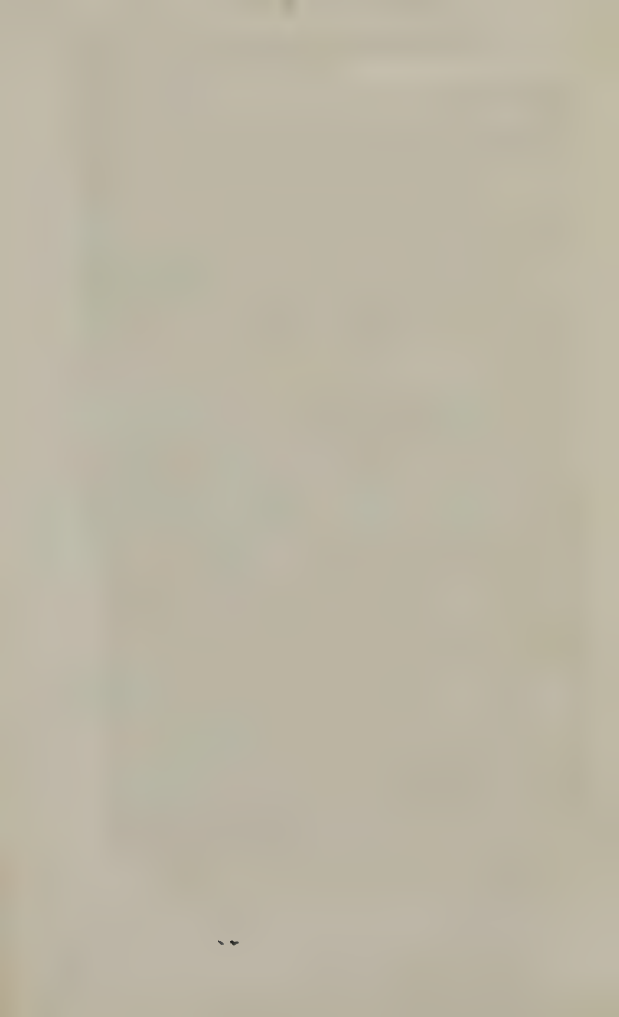
" This article has been extensively used and highly puffed, by a certain class of practitioners, during the last five or six years, both in the United States and England, but it has had its day, and I am happy to believe, that it is not at present employed by any *scientific* or *respectable* practitioner."

It is undoubtedly true, as Prof. Harris remarks, that the number of dentists who at this time employ this *mineral paste* is, comparatively speaking, small. Yet there are those, who in the very face of daily developements of the most startling character, continue its use. Among the fear-

ful warnings of recent date, might be mentioned the case of the late lamented N. P. Ames, of Springfield, Mass. Probably few *disinterested* persons, after carefully perusing the controversy recently published in the New York "Tribune," between several dentists of that city, will choose to advocate its claims to public confidence.

It cannot be denied, however, that in some instances the use of this paste has answered every reasonable expectation of both the operator and the patient ; but the reasons for disapproving its use entirely, are, that by far too many cases in which it has been employed, have been attended with unfavorable results, compared with the number that have proved successful, and that no practitioner has any criterion by which he can determine, before the operation is performed, in what manner its effects will be exhibited.





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The Teeth, By



DENTIST,

Hartford, Ct,